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THE FARMER.

SATURDAY, NOVEMBER 23, 1833.

FATTENING HOGS ON APPLE PIE.

Franklin's adage, in the mouth of Poor Richard, that "a *penny saved is as good as two pence earned*," should be constantly in the recollection of the farmer. There is scarcely a plant that grows upon the farm but what may be made to furnish wholesome food to animals or vegetables. To know *when* and *how* to use them, and resolutely to give this knowledge a practical application, constitute one of the most valuable features in good farming. The stocks, the straw, and even the weeds, that waste in the fields, and the urine that is washed from the yard, are as much the natural food of vegetables, as hay and grain is of animals; and if husbanded and properly applied, will make a fair return. But as it seems doubtful whether the present generation, *in western New York*, can be made to appreciate the importance of economizing the food of vegetables, we will state some facts in regard to economizing animal food, which we trust may not be unacceptable.

Stephen Titus, of New Baltimore, fattens his hogs upon *apple pie!* So he told us to-day. Stephen Titus is of the religious denomination termed *Friends*, a pretty good guarantee for his veracity. But *we* want no guarantee; for we verily believe all he told us; and as we consider the facts valuable, we will give the narration in detail. I fill a pot ash kettle, said he, with two parts of apples and one of potatoes, together with half a bushel of Indian meal or bran, and a sufficient quantity of water to boil the mass well. When boiled, I call it *apple pie*. It is then thrown into the swill tub, mashed with a mall, and the butter-milk and sour-milk of the dairy added, when it may be termed *apple pie and milk*. Mr. Titus says he has used apples for years, and with great advantage, in fattening hogs and neat cattle, both in a raw and cooked state; and that he considers an orchard even for these purposes, a valuable appendage to a farm. Friend Titus contrasted his management, in this respect, with a neighbor, who had cut down 200 fine Jersey Sweeting apple trees, as cumberers of the ground.

Mr. Titus' is the first experiment with cooked apples that we have heard of; but we don't see why cooking apples may not be an improvement, when given to high fed animals, as well as cooking corn and potatoes. An interesting fact was stated to us a few days since by one of the best farmers of our country, one who has probably collected more important data upon the profits of different branches of husbandry than any other In a nicely managed experiment in fattening hogs, he alternated for some days with each kind of food, boiled potatoes and meal,—and hasty-pudding. He found that the potatoes and meal made two pounds of live pork in each hog per day, while the hasty-pudding made more than three pounds per day, we think he said 3¼ or 3½ lbs., a conclusive evidence of the difference in food, as well as of the importance of having it *well cooked*—for probably the meal was not mixed with the potatoes till after they had been boiled.

We have a word more to add upon orchards. A fanatic zeal has in more instances than one led to their destruction, under the plea that they fostered intemperance! Why not carry the principle through? Cider, especially in its concentrated form of cider brandy, may cause intoxication, and lead to intemperate habits. Rye and corn, by the aid of the distillery, cause the like evils. Shall we therefore discontinue their culture, because they *may* be perverted to a bad use? We confess we are fond of good cider; and think apples are among the greatest luxuries of life, and their use, in various ways, highly conducive to health. Some eminent moralist has compared man to a barrel of unfermented cider, which, if stopped at the vent, is apt to leak at some other point; or, in other words, that a too rigid restraint upon innocent indulgence, may lead to greater evils. We hope the example of Mr. Titus, which we have stated, may stay the hand of the destroyer; and induce those who deprecate alcohol, to convert the products of their orchards into pork and beef. B.

HINTS TO HORTICULTURISTS.

It is safer to take up the roots of the Dahlia, the Tuberose,* *Commelina cælestis*, and *Amaryllis formosissima*, soon after the leaves or stems have been killed by the frost; but most of the shrubs or erennials of the garden, that require some protection against severe weather, will commonly bear with safety all that occurs till the close of autumn. We prefer leaving them exposed indeed, till this period. Some kinds, if sheltered sooner, will continue growing when they ought to be preparing for a long repose; and the leaves or stems which protrude when covered, are etiolated and succulent, consequently less qualified to endure the cold that follows.

Among the many which require to be laid down, or cased in evergreens, are the *multiflora*, the *greville*, the *champney*, the *noisette*, and the Bengal, roses. It is generally safer and attended with less trouble, *to lay down*, whenever the stems are sufficiently flexile for this purpose. *Hydrangea hortensis* is hard to preserve through our long winters without resorting to this method. Some shrubs however, are too rigid to bend, such as *Hydrangea quercifolia*, and *Jasminum revolutum* when the stems are strong; but as the latter is very difficult to secure, even with evergreens, it has occurred to us that by destroying the stronger shoots in spring, others *more slender* would be produced, which might be laid down with convenience and safety.

Coronilla emerus, *Jasminum humile*, and *Kerria japonica* are almost hardy, yet they blossom more beautifully after being laid down. *Jasminum fruticans* absolutely requires this precaution.

It is not our intention to give a list of all that need shelter, but rather such general rules as have occurred to us in the course of our horticultural practice, with a few illustrations. Some plants, like the English Bramble (*Rubus fruticosus*), the white Jasmine (*Jasminum officinale*), the Chinese Honey-suckle (*Lonicera flexuosa*), and the Ayrshire Creeper (*Rosa sempervirens* var. *subdecidua*), send out long runners on the ground, at the same time that the main part of the plant takes an upright direction. Such shrubs of this description as are tender, may be managed in the easiest manner. Throw a few branches of hemlock over them as they lie on the ground, and they will repose in safety till spring. If the upright parts are then found to be damaged by the cold, amputate them; in their places, raise the sheltered stems, and these will blossom as finely in the succeeding season, as if our winter was disarmed of twenty degrees of frost.

Auriculas should be covered by moss; and some evergreen branches over them may add to their security. It is not enough that plants barely survive the winter: we want them to come forth in spring uninjured and vigorous. For this reason we recommend that the *cowslip*, the *primrose*, and the *polyanthus*, be also protected; for though in the Genesee Country all these plants are hardy, yet sometimes their flower-stems are partially protruded in Autumn, and a slight covering would ensure them an earlier bloom.

It should be adopted as a general rule that all plants (shrubs or perennials) from a warmer climate, if transplanted in autumn, need some protection; and most plants that have had the earth shaken from their roots in transplanting, so as to wither only a little, also require some protection; for until the *spongioles* recover their tone, they cannot be supplied with the requisite nourishment, nor acquire the vigor that is necessary to resist low temperatures.

We know of no *exotic* vine (*Vitis*) that will abide our severest winters without damage; and therefore none should be left exposed on the stake or the trellis. Perhaps the best and easiest method is to cover them with earth, though if they are *laid flat on the ground*, in ordinary winters they will do,—especially if there is some snow during the severest weather, which is commonly the case. In burying them, we have found a great convenience in having two or three flat stones, heavy enough to press the vine closely down to its place, till the earth can be thrown on. The stones are then removed, and the vacancies which they occasioned, are filled.

* From *tuberosa*, characteristic of the root of this species of *Polianthes*.

ON PRUNING YOUNG TREES.

While we are taking up and transplanting young trees, it is judicious to examine them, and to observe if there are any branches which will be likely to chafe each other at their bases when

they shall acquire a greater growth. In such cases it is necessary for the welfare of the tree, to remove one of them; and the sooner it is done the better. Trees that are disposed to grow upright, require the most care in this respect. For want of such attention, we have seen many, when they come into full bearing that have split down the trunk, and been spoiled; and we are persuaded that the old maxim, "A stitch in time, saves nine," is not of more importance to the seamstress, than our advice is to the cultivator.

Do but consider the matter. We cut off a limb as thick as one's finger, and possibly two feet in length, which can be well spared at this time. All the sap imbibed by the roots, passes into the other branches; and probably there is not one leaf less in the course of the season, on the whole tree, in consequence of such excision. But let a limb grow for seven years, which ought not to grow, and then whether it be *cut* or *broken* down, it is attended with very serious damage.

Where *erect* and *horizontal* limbs unite, Nature forms a kind of net-work of woody fibres, interlaced and intertwined, that will not yield to any weight that can be applied to the horizontal branch. The knees of vessels are of this description; and present the greatest possible strength of woody fibre within a given space. On the contrary, when the two branches form only a small angle, the barks chafe, the network is not formed, and in process of time the limb is almost sure to split down.

EXCRETORY P WERS OF PLANTS

It has been lately discovered by a vegetable physiologist on the continent, that plants actually exude excrementitious matter from their roots. Plants put to grow in water impregnated with a certain chimical quality, absorbed a certain portion of it, and on being removed into another vessel of pure rain water, discharged into the latter liquid the quality absorbed in the first. In order that no portion of the impregnated water might be carried upon its exterior, the plant was carefully washed in distilled waters previous to its immersion in the rain water. This experiment showed to a certainty, that the plant had taken into its vessels a chimical body in solution, which it afterwards emitted. On the strength of this proof of the power of plants to give out what they before had taken up, a new theory has been founded, importing that in this respect they resemble animals, taking in food by one set of organs, and after appropriating to themselves by assimilation such parts of it as may be suitable for their sustenance, disgorge the refuse by the same or some other organs, into the earth. The necessity of a rotation of crops is accounted for on this hypothesis—the plants discharging their fœces into the earth contaminate it and render it unfit for the support of plants of the same kind following on the same spot.—*Hort. Reg.*

Remark—The inference deduced above, and by Prof Lindley, that the exuded matter becomes a poison in the soil to a crop like that which gave it off, is manifestly incorrect; otherwise two crops of wheat or other grain would not grow in succession on the same field—a fact which is disproved by the experience of almost every farmer in the Genesee. The utility of a rotation can be explained on a different and more rational principle—the exhaustion in ordinary soils, of the particular food of a crop in a season. The great secondary formation of the west so abounds in the specific food of wheat, that a succession of these crops does not exhaust, though it must sensibly diminish it. In general grounds will not bear two successive crops of wheat without great deterioration. Flax particularly exhausts the specific food adapted to its wants, and is not grown a second time on the same field, in Holland and the Netherlands, except at intervals of 8 or 10 years. B.

CULTIVATION OF EXOTIC GRAPES.

It has been already remarked that this year has been very unfavorable for grapes on account of the mildew; and we would call the attention of such horticulturists as cultivate the exotic kinds, to the hitherto inexplicable fact that Vines not more than three or four years old, are commonly exempt from this malady. One of our friends, never had better *Sweet water* grapes than grew on a young vine in the present season, while a long row of old vines have failed to produce him one good bunch.

A practical application of this knowledge may be readily made. Dig up the old roots and keep a succession of young vines; and all our patrons who will take this trouble and "Time by the foretop," may have their tables plentifully supplied with this delicious fruit.

THE BLACK TONGUE.

In answer to the inquiry of our Michigan correspondent, in No 47, we have been favored with the following:

Messrs. Editors—In your last number inquiry is made for the most successful mode of treating the disease now raging among the cattle and horses, in the counties of Genesee and Erie, called the Black Tongue.

I profess no skill as a veterinary, but cheerfully proffer a recipe for treatment, which has been tested with success in two decided cases in my own stable within a few weeks. 2 oz. of Copperas, 2 oz. of Alum, 2 oz. Borax and a half pint of Salt dissolved in one quart of sharp vinegar, and when blood warm used as a wash upon the tongue and mouth, generally six times a day for three days—after which, something more mild and healing applied, will be found beneficial. Linseed Oil, or a strong decoction of Sage sweetened with honey, will soon heal the parts affected, and enable the horse to be put upon his feed again. A. C. S.

Batavia, Nov. 25, 1833.

The New England Farmer furnishes the subjoined

Recipe.—On the commencement of the disease, bleed moderately. If the blood, after cooling, appears to have much buff on it, repeat the bleeding—give a pint of castor oil; if it does not operate in 16 hours, give two thirds of a pint. Niter may be given at the rate of two ounces a day, or salts two or three times a week, 1-4 lb. at a time; these may be given in a thin mush, or rather slop of bran, it being the best food for the animal while diseased.

Take half a pint of honey, one table spoonful of borax, and one quart of strong sage tea, mix them well togther, then take a stick and tie a soft rag to the end of it; dip it in the mixture and wash the tongue, gums and mouth well; the more frequently the better, at least every two hours—sweet milk in the tea will do no harm, or a little niter may occasionally be put in with good effect—be particular in keeping the mouth clean, and nursing the horse with care.

The pulse and appearance of the blood must govern as to the necessity of bleeding more than once.

THE CANADA THISTLE.

In No. 43, page 343, we copied an article, credited to the Manlius Repository, on the Canada Thistle, from some one of our exchange papers. We have since discovered that what we published was only the *beginning* and *end* of the article as it originally appeared in the Manlius Repository, which is as follows:

Mr. Editor:—I have, for a long time past, been hoping that some one who felt a deep interest in the subject, and who was capable of doing justice to its importance, would address the community through the medium of public journals on the subject of the *Canada Thistle.*

I have anxiously waited to see some remedy suggested to arrest and lessen, if not wholly extirpate, this terrible evil—but until very lately, I have not seen even a passing notice taken of the subject. More than three years since, I had prepared an article for the press, earnestly soliciting the attention of the community to this subject; but on consulting my neighbors and acquaintances, I found such an astonishing apathy in relation to it, such a total disregard of what I deem their essential interest, that, disappointed and dissatisfied, I consigned my article to the flames. I am rejoiced to find some indications now, of a disposition to give it a consideration; and to have lately noticed in the Genesee Farmer, a proposal to farmers to give their sentiments and opinions on the subject. In pursuance of this suggestion, I here venture to contribute my mite, in the hope that I may possibly aid in arousing the attention of the agricultural community to such a consideration of the subject, as its importance demands, and as is obviously required by its influence on their interests.

That the *Canada Thistle* is an evil of the most alarming character to the comfort and welfare of the farmer, no one acquainted with its history will for a moment deny. It is an evil in my view of immense magnitude—one that is daily, and most alarmingly increasing—and that will, I fear, ultimately, overrun the whole country, and almost ruin the value of our farms, unless the most vigorous and efficient measures are immediately taken to arrest its progress. I am astonished that farmers, generally, appear so little interested and alarmed on this subject, and am afraid they do not fully realize the nature and magnitude of the evil. During the few years that I have been acquainted with them, they have multiplied astonishingly on my ground. Ignorant at first, and unadvised, of their true character I spread them by the use of the plough and harrow, over large fields, and thus lost for grain tillage, some of my most valuable lands. The extent, also, to which they can be propagated by the seed is incredible; for in addition to the immense number of seeds produced by a single plant, kind nature, to perpetuate its being, and enable it to fulfil the great command to increase and multiply, has furnished each seed with wings of down, which bear them on every passing breeze, and spread them far and wide, to remote and distant fields. With intense interest I have diligently sought for some remedy to eradicate them, but as yet I have found nothing that I consider sure and effectual. In cutting them down, I have, as advised, observed "times and seasons, and signs of the moon." I have put salt liberally on the young plants, and have mown down those that were in blossom, and put salt into the hollow stalks—but have never discovered that it destroyed them. There is probably no plant within the circle of our knowledge, so tenacious of life, and so difficult to destroy, as the Canada Thistle.

I know not the fact but consider it reasonable to conclude that by being often cut down, and never permitted to go to seed, almost any plant will ultimately decline and die away. I am inclined to think this the best remedy to arrest their progress. And to be most efficacious, the plant should be mown down when the root is most exhausted, and the juices most in the stalk, which is when the plant is in blossom. But in vain will a prudent, careful, vigilant person re-

gularly cut down the thistles on his own plantation, if his neighbor is permitted to suffer beds of thistles to flourish and go to seed on his adjoining grounds. The cultivated fields of the prudent man, who, to prevent their spread, regularly and seasonably cuts them down, may be even white with the down from the neglected thistle beds of his less careful neighbor, if there is not a *uniform* and *general* practice of mowing them down while in bloom. There is no possibility of consulting our safety, except by *uniformity* and *concert of action*—and no concert of action, on this subject, can be had, except induced by *legislative provision*. The object of this communication is, therefore, to endeavor to arouse the attention of farmers to this subject, and to urge them most earnestly to take into consideration the expediency of making application to the Legislature, at their session the approaching winter, for the passage of a law, forbidding any owner or occupant of land to suffer a bed of thistles to go to seed, under a suitable penalty. The Legislature of the State of Connecticut, I am informed, alarmed at the approach and spread of such an enemy, have passed a law on this subject, requiring every owner or occupant of land to prevent a plat or patch of Canada thistles from going to seed on his ground, or the road opposite his grounds, under the penalty of ten dollars, for each and every neglect. With such an enactment in this State, we could partly, if not wholly arrest the spread of this plant by the seeds. Every farmer can then with some courage and hope of success, resort to such measures to destroy those already in his grounds, as his own experience, and that of his neighbors may suggest as most advisable.

I most earnestly request editors throughout the country, who feel an interest in the prosperity and success of our agricultural pursuits, to press this subject on their patrons, to induce them to instruct their friends whom they may send to the State Legislature, to adopt the only measure, which in my view will be effectual to check this alarming and growing pestilence.

A Farmer.

Pompey, Onondaga co., Oct. 3, 1833.

KENYON COLLEGE.

We have received from some unknown friend, a copy of the Laws and Regulations of Kenyon College and Theological Seminary, at the head of which is the Rt. Rev. C. P. M'Ilvaine, Bishop of Ohio. The Manual Labor system has been adopted; and though none, except theological students, are positively required to labor, yet "it is earnestly desired that all may conform to a system of manual labor from motives of health and usefulness." We notice that among the lectures by the Professors, courses will be delivered on Chimistry, and on Natural History, including the Physiological and Zoological characters of the human race—on Mineralogy and Geology; and on Vegetable Physiology, with the Classifications of Botany; and the Applications of Chimistry to Agriculture and Domestic Economy.

The Largest Potato.—The editor of the Kennebec Journal has received two large, very large Potatoes, of the Pink-eye variety, which grew in Monmouth in the state of Maine.—"They are not," says he, "equal to the parsneps in Missouri, which were pulled up bya steam engine, each root bringing up a New Zealander with it who was tugging to pull it out on the other side; neither are they a match for the Saco potato, which it took two stout men with crowbars to raise out of the ground; but they are smashing great potatoes, as "large as a piece of chalk"—and larger; they are as big as Col Crockett's fist."

THE FALLING STARS.

The extraordinary meteoric phenomenon which occurred on Wednesday morning, 13th instant, seems to deserve more than a mere passing notice. The interests of science, as well as the claims of posterity, demand that the prominent facts in the case should be carefully collected and recorded; and as the best contribution towards such a result which we can render, we have brought together, in the present sheet, accounts of the phenomenon as it appeared in various parts of the United States, from Maine to Georgia, and from the Atlantic to Kentucky and Ohio, which are the boundaries beyond which our information does not as yet extend. The presumption is, that it was visible over the whole Continent; and we know that it was observed 130 miles at sea—probably much farther.

From the various accounts we have presented, it does not appear that there was any marked difference in the *time* at which the meteors began to fall however distant the places, nor in the degree of splendor which the phenomena exhibited. All the *apparent* variation in either respect, probably arises from the times at which it was first *noticed*, and the actual difference in the degree of splendor at different hours of the night. It would seem that meteors, in small numbers, were observed, both at the North and South, as early as midnight; but the most brilliant part of the scene was reserved till 4 or 5 o'clock in the morning.

The same appearance of radiating from a center, at a point near the Zenith, was common to every part of the country;—which proves that it was only an illusion, and not a reality. For, surely, no one can suppose that the meteors were at such a hight as to appear in the same position from places 1000 miles asunder. We are but imperfectly acquainted with the laws of perspective, but our impression is, that they will account in a great measure for the appearance mentioned.

At Buffalo the *Aurora Borealis* was distinctly noticed as a part or accompaniment of the phenomenon; but we do not find it mentioned as having been seen at any other place. In the *evening previous* to the phenomenon, it was observed by several persons in this city.

At Buffalo also, it is stated that some of the meteors *shot upwards;* a peculiarity which we do not find to have been noticed in other places.

The phenomenon, although extremely rare, is not unprecedented. One quite as splendid, was seen in South America on the 12th of November 1799, we are sorry, for the sake of "remarkable coincidences," that it was not the 13th,) a previous one had occurred there in 1766,—a very brilliant one was observed at Richmond, Va. and elsewhere in April 1803,—and another at Mocha, Nov. 13th, (mark the coincidence,) 1832. The present one, Nov. 13th, 1833. The details of these phenomena, so far as within our reach, will be found below.

To account satisfactorily for these phenomena, is not an easy matter: but quite as easy as it is to explain how a blade of grass grows, or how the sun shines. Until we get more light on the subject, either from science or the developments of the future, we must be content to "adore the depths we cannot fathom." However, there is no need of construing every remarkable event as an omen of evil; still less, as a presage of the Great Conflagration. Before that event, we must have the Millenium. They who read in this phenomenon the fulfilment of prophecies in which the stars are represented as falling from heaven, will do well to consider whether eclipses, if we were unacquainted with their cause, would not be a much more literal and terrific fulfilment of the prophecy that the "sun shall be darkened, and the moon shall not give her light." Perhaps four centuries hence, the cause of "meteoric showers" will be as well understood, as that of eclipses is now. Several theories on the subject are given in the annexed accounts, but none of them are very satisfactory. That which attributes meteors, such and so many as we had on the 13th, to a planetic origin, we reject as too absurd to deserve a moment's attention. It will do very well for *meteoric stones*,—but there is not the least evidence that such was the structure of the meteors in question. On the contrary, it is quite certain there was no stony or metalic substance about them; for if there had been, some among the thousands that fell, would have been found; and some heads would have been broken. Whatever they were, it is clear they were highly combustible, and altogether so. Not one of them reached the earth's surface. At least, nobody has' seen them.—*Jour. of Com.*

From the Buffalo Journal.

Very interesting atmospherical phenomena were visible a little before day-light this morning, in this city. My attention was first called to them about half past 4, A. M. The wind which had been very heavy for many hours, had abated considerably, every vestige of clouds had disappeared, and the stars were shining thro' an unusually clear atmosphere. The air from within twenty feet of the earth to apparently the ordinary hight of the clouds, (half a mile) was filled with phosphoric particles, which were continually and successively becoming luminous. They all passed, while visible, with great velocity through the air, but in no uniform direction—some rose, some fell, others moved horizontally, and others again, at every conceivable angle, to these several courses. Their color was a vivid white, resembling that of the flame of steel wire burning in oxygen. Their sizes were various, but mostly about the apparent size of stars of the second magnitude. The distances of their luminous flights were various and not easily calculated. Many of them in their passage, left a luminous line in the air, of their own color, which was often several yards in length, and usually remained visible from one to three seconds. I have said there was no cloud: there was none, but the whole atmosphere was constantly, at very short intervals, illuminated by flashes of light, in no way differing from ordinary silent electrical explosions. The *Aurora Borealis* during the whole time of my observations, which was about half an hour, was distinctly visible, though by no means so brilliant, or so active as that meteor usually is, when visible here. H.

Buffalo, Wednesday, Nov. 13th, 1833.

GREAT CORN RACE,

For One Thousand Dollars, over the Talbot and Dorchester course, in 1834.

This is the sort of sport we like—it is really to our *taste*. In such contests some one may win the prize, but we are confident that, unlike betters on horse races, the *losers* will all be *gainers* in the *long run*. Speed and bottom, say we, to all the competitors, and may they be rewarded for their singular choice in amusements, as was Midas of old, for his preference in the musical contests of a brace of windy gods—may they each acquire not merely a pair, but a multitude of *long ears*. By the way, we hope, as the Cambridge Chronicle suggests, that it shall be made a condition of the race, that each competitor furnish a statement of his method of cultivation, variety of seed used, &c. &c., for the benefit of the public.

One Thousand Dollars!—Agricultural Sweepstake, for Talbot and Dorchester Counties.

A sweepstake proposed to the Agriculturists of Talbot and Dorchester counties, (Md.) on one continuous acre, "a parallelogram," of "Indian corn," *shelled*, to be grown the ensuing season.

Measurement of land, and corn shelled, to be attested on oath. Twenty dollars entrance money to be paid by each competitor, on or before the first day of March, into the hands of one of the editors of the Easton or Cambridge newspapers, of which due notice shall be given, on or before said day, to Martin Goldsborough, of Talbot, or Joseph E. Muse, of Dorchester.

The stake entered shall not be withdrawn unless six shall not have entered, by the said first day of March; in which case, all shall be void—nor shall the number exceed fifty.—*Am. Far.*

Errata.—Gen. Far. vol. 3, page 354, col. 3, line 23, for violuceum read violæceum—p. 357, col. 3, for *Franklin*, read *Fairchild's*.

For the Genesee Farmer.

HYBERNATION OF BIRDS.

I comply with the request of W. G. on the Hybernation of Birds, partly because an expression* of mine may have elicited his remarks, and partly because I am willing to improve the opportunity for explaining the grounds of that opinion.

I have seen no reasonable proof that swallows hybernate in the mud under water. LINNÆUS with all his greatness, was often in error; and his opinion on this point, is not entitled to as much respect as the opinions of many naturalists of the present day, whose attention has been more concentrated on Ornithology. If that notion is correct, it is singular indeed that its advocates after the lapse of a whole century, have not been able to establish it by direct experiment. How easy it would be to drag them up from the bottom of some mill pond, if the birds are really there, at any time during the seven months of their submersion! and all this in the presence of as many witnesses as could be wanted. Philosophers in modern times have taken far more pains to investigate particular subjects. Why then has not this experiment been made by those who believe in the doctrine?

A brief extract from *Bewick*, will show that *he held* a *contrary opinion*. He says, "There are various instances on record that bear the strongest marks of veracity, of swallows having been taken out of water; and of their having been so far recovered by warmth as to exhibit evident signs of life, so as even to fly about for a short space of time. But while we admit the fact, *we are not inclined to allow the conclusion generally drawn from it*, viz. that swallows at the time of their disappearance frequently immerse themselves in seas, lakes, and rivers"

The author of the article HYBERNATION in the New Edinburgh Encyclopædia, says, "These instances of submersion —— we regard as *purely accidental.*"

The instances cited by W. G. from the American Monthly Magazine, are scarcely in favor of Hybernation, even in hollow trees; and have no kind of reference to submersion,—a very different subject. Of the testimony given by the late Dr. *Spafford*, I know nothing except what appears in the Genesee Farmer, and the notice is too slight to enable me to examine it.

Professor *Nuttall* in his ORNITHOLOGY, says, "The Barn swallow *arrives* in Florida and the maritime parts of Georgia about the middle of March.——They *retire* from Massachusetts about the 18th of September, and *are observed* in the same month and in October, *passing over the peninsula of Florida on their way to tropical America*, where they probably pass the winter. ——In January and February, the common chimney swallow *of Europe*, has been *observed to moult* by Mr. Pearson of London, and Mr. Natterer of Vienna; with the latter they survived in cages for 8 or 9 years, and *showed no propensity to torpidity. Accidental fits of torpidity*, like those which occasionally and transiently take place with the Humming Bird, have undoubtedly happened to swallows, *without proving any thing against the general migrating instinct of the species.*——[Our chimney swallow] *after passing the winter* in tropical America, *arrives* in the Middle and Northern States late in April or early in May.—On their first arrival and for a considerable time after, the males particularly, associate to roost in a general resort. This situation in the remote and unsettled parts of the country, is usually a large hollow tree open at top. These well known SWALLOW TREES are *ignorantly supposed* to be the winter quarters of the species, where in heaps they doze away the cold season in a state of torpidity; but *no proof of the fact is ever adduced.*"

Wilson has discussed this subject with great animation; and in my view his arguments are strong, and his reasoning strictly analogical. With an extract from his Ornithology, in which he speaks of the Barn Swallow, I intend to close this article:

"The wonderful activity displayed by these birds, forms a striking contrast to the slow habits of most other animals. It may be fairly questioned whether among the whole feathered tribes which heaven has formed to adorn this part of creation, there be any that in the same space of time, pass over an equal extent of surface with the swallow." He then shows that at their usual rate of flying, in ten years, they might traverse more than "eighty seven times the circumference of the globe! Yet this little *winged seraph*, if I may so speak, who in a few days and at will can pass from the borders of the artic regions to the torrid zone, is forced when winter approaches, to descend to the bottom of lakes, rivers, and mill-ponds, to bury itself in the mud with eels and snapping turtles; or to creep ingloriously into a cavern, a rat-hole, or a hollow tree, there to doze with snakes, toads, and other reptiles until the return of spring! Is not this true, ye wise men of Europe and America, who have published so many *credible* narratives on this subject? The Geese, the Ducks, the Cat-bird, and even the Wren, which creeps about our out-houses in summer like a mouse are all acknowledged to be migratory, and to pass to southern regions at the approach of winter;—the Swallow alone, on whom heaven has conferred superior powers of wing, must sink in torpidity at the bottom of our rivers, or doze all winter in the caverns of the earth. I am myself something of a traveler, and foreign countries afford many novel sights: should I assert that in some of my peregrinations, I had met with a nation of Indians, all of whom young and old, at the commencement of cold weather, descend to the bottom of their lakes and rivers, and there remain until the breaking up of frost; nay should I affirm that thousands of people in the neigborhood of this city, regularly undergo the same semi-annual submersion——that I myself had fished up a whole family of these from the bottom of Schuylkill, where they had lain *torpid* all winter, carried them home, and brought them all comfortably to themselves again. Should I even publish this in the learned pages of the Transactions of our Philosophical Society, who would believe me? Is then the organization of a Swallow less delicate than that of a man? Can a bird, whose vital functions are destroyed by a short privation of pure air and its usual food, sustain for six months, a situation where the most robust man would perish in a few hours or minutes? Away with such absurdities!"—Ornithology, Vol. 2. page 412–14. D. T.

* Genesee Farmer, Vol. 3. page 292.

For the Genesee Farmer.

THE AUTHORITY OF THE SACRED SCRIPTURES AGAINST THE DOCTRINE OF THE TRANSMUTATION OF GRAIN.—No. II.

"That which thou sowest, thou sowest not that body that shall be, but bare grain: it may chance of wheat, or of some other grain. But God giveth it a body as it hath pleased him, *and to every seed his own body.*" 1. Cor. xv. 37, 38.

The first of these verses has been quoted by a writer in the Genesee Farmer to prove the consistency of the doctrine of transmutation with the words of scripture, but the writer who quoted it, was referred by D. T. to the verse which immediately follows it, as not quite so much to his purpose. "God giveth it a body, as it hath pleased him, and *to every seed his own body*," which speaks the same unalterable truth declared in Genesis. "And God said let the earth bring forth grass and herb yielding seed, and the fruit tree yielding fruit after his kind: and it was so."

The first verse at the head of this article cannot be interpreted to speak the doctrine of transmutation, if we consider the object the apostle had in view, and take the passage in connection with the verse that follows it. His object was to prove the truth of the doctrine of the resurrection to the Corinthians by some of whom it was denied: and he borrowed this beautiful comparison from the operations of nature, as one most fit to illustrate it. "But some men will say, How are the dead raised up, and with what body do they come? Thou fool, that which thou sowest is not quickened except it die." The grain which you commit to the earth does not germinate and grow except it undergo a change similar to death; a change takes place in its constituent parts; and as the germ puts forth, the old kernel shrivels and dies. So the body of man after it dies shall again be quickened and raised up,—"And that which thou sowest, thou sowest not that body that shall be, but bare grain; it may chance of wheat or of some other grain:" The grains of wheat or corn which you sow, are not the identical grains that shall be, but those from which the future crop is produced. They perish, but a body arises from them which produces the seed for the future harvest, perchance of wheat or of some other grain, according to the kind which you sow. "But God giveth it a body as it hath pleased him, and to every seed *his own body*," not the body of *another*: to wheat he giveth wheat, to rye, rye, and to chess, chess. "It hath pleased him" in the creation, to give to each kind of plant, herb and tree, a body or seed after its own kind, peculiar to itself. So in the resurrection, the body that is sown in the grave, is not that same body in all its constituent parts, that shall be, but that from which the resurrection body shall be formed or produced: for, "It is sown in corruption, it is raised in incorruption. It is sown in dishonor, it is raised in glory; it is sown in weakness, it is raised in power; it is sown a natural body, it is raised a spiritual body." Though altered in its nature it will be the same in form. But each individual will have his own body, at the resurrection, A. will not have B.'s, nor B. have A.'s: even, as every kind of grain which is sown, will have its own body or seed, when it comes to grow up, wheat will not have chess, nor chess wheat. Thus, the apostle, while he proves and illustrates the

sublime doctrine of the resurrection by this simple operation of nature, confirms with another writer of the sacred scriptures the truth of this universal law which God has impressed upon the vegetable as well as the animal world: that one species or genus of plants shall not turn to another: and thus confutes the absurd doctrine of transmutation. W. W. B.

Hammond's, Port 1833.

For the Genesee Farmer.

HIGHWAYS.—NO. XII.

My worthy coadjutor D. B. has wondered why I have been so sparing of my pen. I will tell him: because great changes are not in common cases to be immediately brought about. Our citizens want time to consider the subject; and I want the privilege of calling it up to their attention from time to time.

——————The dripping rill
Will through the solid marble drill.

Our present road system is an evil not to be swept away by a freshet; and therefore we must shape our minds to untiring and persevering efforts.

I began as I expected to hold out. D. B. already talks of stopping. So far he has done well, but surely the subject is not yet exhausted. The public may be satisfied that a great evil exists; but it may not be satisfied that an effectual remedy can be provided. D. B. would much oblige me therefore if he should continue his Dissertations; and lay before us the leading features of a NEW BILL, intended entirely to supersede the present system. If we undertake to pull down the old building, we must provide *the ways and means* for erecting a better; and I have no doubt if its practicability can be clearly shown, that it will be easy to bring the subject in due time before the Legislature.

Much information might be derived from the practice of other States. It is probable that D. B. can conveniently examine those Road Laws; and if so, I should be gratified to have his report.

VIATOR.

For the Genesee Farmer.

CHESS.

The Editor of the *Watertown Eagle* states that "J. Woodworth, Esq., a gentleman of undoubted veracity informed us that he had seen wheat and chess growing from the same stalk, each perfect in its kind: *the chess springing from the head of wheat.*" This is a case however, in which parole evidence is not admissible; and if the Editor, or his informant, will take the trouble to examine the Genesee Farmer Vol. 2, at page 353, or Vol. 3, at page 83, he may discover that he has 'thrown no light on the subject.' W. R.

RECIPE TO MAKE PONE BREAD.

Take as much corn meal as is wanting for use; sift it through a hair sifter; put it in an iron pot, and pour on it boiling water; stir it with a spatula or ladle till it becomes well mixed and quite thin; this being night, let it remain in the same vessel till morning, and if kept warm it will be well fermented, (which is necessary;) then put it in what is called a Dutch oven, it being hot before the dough is put in it; apply good live coals on the lid of the oven and under it, being careful not to burn the bread. When thus prepared, if done carefully and according to this recipe, more wholesome and better bread cannot be used for breakfast. I think it anti-dyspeptic, as no lard or butter is used in preparing the bread, though after it is cooked good fresh butter adds to its flavor.—*American Farmer.*

FROM RECENT FOREIGN PUBLICATIONS.

[Selected for the Genesee Farmer.]

A PRACTICAL TREATISE ON AGRICULTRE, BY R. W. LLOYD.—The intention of the author of this pamphlet is to supply those uninitiated in the art, with a plain and simple exposition of the principles of practical agriculture, of which great numbers are to this day almost entirely ignorant. From what we know of the subject, we think the mode he has adopted is likely to be successful. The author, after a few preliminary observations, treats of ploughing and cleaning land, and on the rotation of crops, whereon he remarks, that for heavy lands, the most judicious crops are wheat, cabbages, beans,(*a*) oats and clover;(*b*) for light and dry soils, vetches, barley, buckwheat, all the variety of the green crop tribe, and most of the various kinds of grasses. In a rich loam, which is of all descriptions of land the very best, any of the above mentioned plants will thrive well. He next proceeds to remark on the value and profit of different plants, and the winter vetch, in his opinion, stands unrivaled, not only as regards present profit, but as a great improver of the land. Turneps come next, being considered preferable to either mangel wurtzel, carrots or parsneps. The two sorts chiefly recommended are the Swede(*c*) and yellow Scotch.

The pamphlet treats of mangel wurtzel, carrots, cabbages and potatoes. Under the latter head is introduced the comparative value and produce of potatoes and turneps. A crop of potatoes is considered very good when an acre yields 400 measures. One measure weighs 105 lbs. which multiplied by 400 makes a total of 42,000 lbs. This divided by 2,240 lbs. being one ton of 112 lbs. to the cwt. shows the produce per acre to be 18 tons 1780 lbs.; we may say 18 tons. And what is this in comparison with an acre of Swedes or other turneps? The crop is but an ordinary one if it does not weigh 30 tons, for this weight may be easily obtained; and if from such land as would yield 400 measurs of potatoes per acre, much more than 30 tons of turneps might be got. As food for cattle, sheep and hogs, turneps answer the best. All kinds of stock will eat them without tiring, which certainly is not the case with potatoes; and added to this, potatoes are in their nature heating. The expense of planting and gathering potatoes are more than double the cost of turneps, which leaves a material difference in the profits of the two crops. The author also treats on buckwheat, on corn, [not Indian corn,] on the summer fallowing, which he justly deprecates, on laying down land to grass, on lucern, on the raising and application of manure, and, lastly, he concludes by summing up the whole after this manner: The *first* rule for a farmer should be, not to take two successive crops of corn [grain] from the same field, if he can possibly avoid it; certainly never three: second, to substitute some or other of the ameliorating crops, and sow either peas, beans, vetches, buckwheat, turneps, cabbages, potatoes or mangel wurtzel, between every crop of corn: his *third*, never to sow on foul land; and last, though not least, his *fourth*, to be vigilant, honest and industrious, &c. &c.—*Lond. Hort. Journal for Sept.*

(*a*) Horse beans. (*b*) *Not* judicious. (*c*) Better known among us by the name of ruta baga.

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CULTURE OF POTATOES.—A frequent change of seed is necessary. Any sort may be continued fertile and profitable by removing them from one country to another every fourth or fifth year, or by raising them alternately on different descriptions of soil. In the cultivation of this useful plant, it appears, from many experiments, that it requires ample space. In field culture, placing the sets of strong growing kinds in every third furrow, and those of the dwarfer sorts in every second furrow, are eligible distances. There are different opinions respecting the necessity of earthing up potatoes. On very thin soils, however, it is absolutely necessary. On deeply ploughed, or trenched ground, earthing up the stems is certainly less necessary; because as the under ground runners, which produce the tubers, are inclined to extend themselves as deeply in the soil as the roots, they do not seem to acquire any additional depth of earth immediately over them. But this depends entirely upon the open porousness of the soil, and the manner of growth of some of the kinds. Plucking off the flowers increases the size and number of the tubers.* It is founded on a law of nature, disposing a plant, constituted at the same time to produce both seeds and tubers, to yield one or the other more abundantly, according as either is destroyed. If tubers be not allowed to form, many flowers and apples will be the consequence; and if the flowers be destroyed as soon as they appear, the tubers will be increased. It is bad management to plant the refuse; or odds and ends of last year's crop, for the sets of this. If potatoes are planted at all they should be planted well.—*Br. Far. Mag.*

* A yankee experiment, stated in a late N. E. Farmer, shows, that the product is *diminished*, and not increased, by plucking off the blossoms.

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CULTURE OF POTATOES.—No variety should ever be cultivated which uselessly expends itself in the production of seeds, or of full grown blossoms, unless it possesses some valuable redeeming qualities. The distance of the itervals between the rows should be wholly regulated by the length required by the stems in each peculiar situation or soil. If the utmost length required by the stems be four feet, let the intervals between the rows be four feet also; and if the variety be of dwarfish habits, and its longest stems do not exceed two feet, intervals of two feet will be sufficient. The rows should be made from *North to South*, that the mid-day sun may be permitted fully to shine between them, for every particle of living matter found in the tuberous root of the potatoe plant, has been generated into leaves, which act only when exposed to light, and has *descended* beneath the soil. Each set should weigh at least six ounces, and they should never be placed at greater distances from each other than six inches from center to center, and a preference should be given to *whole potatoes* when such can be obtained. If the growth of the plant be very dwarfish, four inches between the set, from center to center, will be preferable; and if the form of the potatoe be long or kidney-shaped, a good deal of advantage will be gained, by placing them upon their ends, that end which joined the parent plant being placed downwards. The largest produce will generally be obtained from varieties of rather early habits, and rather low stature, there being in very tall plants much time necessarily lost, in carrying the nutriment absorbed from the soil, up into the leaves, and down in the state of living sap to the tuber. Varieties which have strong stems and erect forms are to be preferred, because such are least subject to fall upon, and shade the foliage of each other. It is much more advantageous to incorporate the manure with the soil by means of a spade or plough, than to put it in with the sets; for in the latter case, a large majority of the roots, during the summer and autumn, do not derive advantage from it. Early planting is under almost all circumstances, best; and the period except for some peculiar varieties, should never be later than the middle of the month of April.—T. A. KNIGHT, Esq.—*Br. Far. Mag.*

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TO PREVENT CATERPILLARS FROM ATTACKING FRUIT TREES, &c.—Let a hole be bored in the stem of the tree, penetrating as far as the heart, in a direction sloping downwards, about a foot from the surface of the ground. Into this hole pour a little mercury. Close up the hole with a peg, not very tightly fitted in. Cut the top of the peg smooth with the bark of the tree, and then put a little tar over it to prevent water from getting into the hole. This I have found to be a sure and safe method, not only of preventing the attacks of caterpillars, but of driving them off the tree; and it is not yet, I believe publicly known.—W. BROWN.—*Jour. Agricul.*

ORCHARDS AROUND FARM HOUSES.—It is expedient that every farm should have some portion of orchard ground attached to it. The most convenient and guarded situation for it is immediately behind the house, so that the back kitchen door may open into it. It matters not whether it be on the north or any other side of the buildings. Many think that an orchard should be in a low sheltered spot, but this is a serious mistake. Fruit trees succeed best on a moderately high and open situation. Shelter from wind is certainly necessary, but this protection must be obtained otherwise than by planting in a dell. A deep mellow loam is most suitable for an orchard. It does not require to be richly manured, provided it is fresh, unexhausted, and sufficiently dry. Whether the subsoil be gravel or stone, provided such beds be not too near the surface, it will be no detriment to the trees; but if of a tenacious clay which is retentive of moisture, then draining* must be resorted to, in order to free the soil from a superfluous moisture. This must be done effectually, otherwise it will ever be a subject of regret to the planter. A sloping surface is better for all plants than a dead level, not because a heavy or long continued rain or melted snow runs off the sooner, but because that portion of it which sinks into the ground gradually passes downward in an under current, leaving no portion to stagnate in any one place, and to become prejudicial to the roots. The most profitable kind of orchard is that which contains all kinds of hardy fruit trees and bushes, and where the land is solely appropriated to that purpose. This kind resembles gardening more than farming, and is therefore unsuitable to large farms, but quite applicable to small ones, to which an acre of orchard, requiring no horse labor, would be of essential benefit. In such orchards, half standard apples are planted in rows eighteen feet from each other, the trees being twelve feet apart. In the same line with the apple trees are planted either gooseberry or currant bushes, or what sometimes pay equally well, filberts. The latter are not allowed to rise higher than about four feet, and are kept spurred in, exactly like the white currants. Gooseberries gathered green for tarts pay the farmer better than when ripe, and are not nearly so troublesome in the carriage to market. As such an orchard is not to be grazed, two feet of the soil on each side of the rows is kept bare, and always free from weeds. On this a quantity of rotten dung may be laid every winter, and raked off in the spring, upon the intermediate strips of ground to be planted with potatoes, or sown with onions, turneps, scarlet runners, or any other crop which the cultivator can most advantageously dispose of in his neighborhood. The earliest and surest bearing apples should be preferred. A few of the earliest pears may be mixed, as the petit Muscat. The most hardy and profitable kind of plum for a farm orchard is the common Damson, it being always in request for baking, preserving, or for wine making.—MR. MAIN—*Jour. Agricul.*

BONE DUST AS MANURE FOR TURNEPS.—Although the quantity of bone dust usually applied to an acre is two quarters, yet one quarter will suffice if mixed with one or two quarters of riddled coal ashes. The bones should be carefully and equally mixed throughout the mass, which will be best effected by frequent turnings of the shovel. To expedite the drying of the ashes, strew a little hot lime, while turning the mass. The compost is sown with the usual machine. Turneps raised with this compost of bone dust and ashes, in the quantity alluded to, have been sold for 7*l.* per acre, to be eaten off with sheep. They possess the same characters of a close crop, firm root, and hardiness to resist the rigor of winter, as turneps raised with bone dust alone evince. Perhaps peat, or vegetable ashes of any kind, would be equally as beneficial to mix with bone dust as those of coal.—*Jour. of Agricul.*

APPEARANCES AND INFLUENCES OF THE MOON.—It is generally believed, especially in the neighborhood of Paris, that the moon in certain months has a great influence on the phenomena of vegetation. They give the name of "red moon" (lune rousse) to the moon, which, beginning in April, becomes full either about the end of that month, or in the course of May. It is maintained that during these two months, when the sky is clear, the leaves and buds exposed to this light become red, that is to say, frozen, although the thermometer in the free atmosphere, should stand several degrees above the freezing point; and if the rays of the moon be intercepted by clouds, and prevented from reaching the plants, the same effects do not take place, under circumstances perfectly similar in other respects with regard to temperature. No one had supposed, before Dr. Wells, that terrestial substances, excepting in the case of very rapid evaporation, may acquire, during the night, a different temperature from that of the surrounding air. This important fact is now well ascertained. We cannot, therefore, judge of the degree of cold with which a plant is effected during the night by the indications of a thermometer suspended in a free atmosphere. The plant may be strongly frozen, although the air remain constantly several degrees above the freezing point. In the nights of April and May, the temperature of the atmosphere is frequently only four, five, or six centrigrade degrees above zero. When this happens, plants exposed to the light of the moon, that is, to a *clear* sky, may be frozen, notwithstanding the indications of the thermometer. If the moon on the contrary does not shine, in short, if the sky be cloudy, the temperature of the plants does not fall below that of the atmosphere, and they will consequently not be frozen, unless the thermometer indicates zero. It is, therefore, quite true, that a plant may be frozen or not, according as the moon be visible or concealed behind clouds. The moon's light is, in this case, only the index of a clear atmosphere, and it is only in consequence of the clearness of the sky that the natural congelation of plants take place; the moon contributes in no way whatever, for although she might be hid under the horizon, the effect would not be different.—M ARAGO.—*Field's Nat. Mag.*

ON THE ORIGIN OF WEEPING TREES.—I have never seen a printed report on the manner in which the different variety of trees have been discovered; for example, the weeping ash. The cause of this neglect may be, that persons finding such varieties either do not examine their origin, or keep it secret, from personal interest. If, therefore, this suject be not better known in Germany than in England, the following observations may prove not uninteresting to your society. Fascicles or bundles of shoots are often observed on trees, which resemble a bird's nest at a distance; but, when examined, they prove to be a cluster of small twigs. Such bundles are observed on different trees, but more frequently on the white or common birch tree (Betula alba L.) In the year 1808 I observed such a bundle on the Cratægus (Mespilus) oxyacantha, and grafted young thorns with them, which, in two or three years produced beautiful weeping branches. About the same time I observed such a bundle on Ulmus campestris, eyes of which were budded on healthy young trees, and every one produced a long hanging shoot. According to this observation it would be very easy to procure a very large collection of weeping trees. Our gardeners, however, multiply no species so numerously as the Fraxinus excelsior, var. pendula, which variety often retains its hanging character when raised from seeds. We possess several such trees, of about ten feet in hight, which were raised from seed of the original tree, obtained in 1780, from a nurseryman, who found it a few years previous to that, in the neighborhood of New-Market.—W. ANDERSON—*Tr. of the Society for the advancement of Gardening in the Prussian States.*

THE MELONS OF BOKHARA.—Capt. Burnes, in forwarding to the Horticultural Society some seeds of the celebrated melon of Bokhara, observes:

"From the melons of India we can form no idea of the luscious natute of the fruit as it grows in the plains of Toorkistan, or, as we call it, Tartary. This melon attains a great size, having frequently a circumference of two and a half and three feet—those which are reared in winter are much larger, and two of them form a load for a donkey! One has a notion that that which is large cannot be delicate, but no fruit in the world can surpass the melon of Bokhara. Those of India, Cabool, and Persia, not even excepting the well known fruit of Ispahan, do not bear any comparison with it. The pulp of the Bokhara melon is about two inches and a half thick, and retains its flavor to the very skin, which is the criterion of superiority with the inhabitants. So great a quantity of saccharine matter is contained in the melons of Bokhara, that molasses, and consequently sugar, may be readily extracted from them."—*Asiatic Journal.*

QUESTIONS AND ANSWERS ON SHEEP, CATTLE, &C.

We published in our last number, page 374, an essay on Rotation of Crops, read before the Maryland Board of Agriculture, by SAMUEL STEVENS, Esq.; and we take pleasure in transferring to our pages another valuable paper, from the pen of the same gentleman, read before the same body. The questions answered were proposed by the Board of Agriculture:

Question.—What species of Sheep do you consider the most valuable to farmers generally, and what are the best modes of managing Sheep and Lambs?

Answer.—On this subject I possess the pride and ambition of a *Farmer*, and fearless of contradiction, pronounce the Bakewell Sheep bottomed on Merino, the most profitable. In the first place, the Merino gives a fine beautiful wool, and when crossed by the Bakewell, you add beauty and size, both having a predilection for fat, and an uncommon sweet flavor, and what is very remarkable and important, they are ready for the butcher at eighteen months old, and if suffered to remain two years old, they will increase in beauty, size and fat, superior to any other breed of sheep I have ever seen—and on as little food. But all farmers who expect to have fine sheep, ought to be careful every year, to select the most beautiful form and figure to breed from, both in male and female, and be sure never to suffer his Ewes to go to the Ram until the fall after they are twelve months old. He should keep his breeding Ewes, his Lambs after they are weaned, his Wethers, and his Rams in separate pastures, and I consider it bad policy to put the Ram to the Ewes before the 20th of September or first of October; his Lambs will then fall about the first of March when the grass begins to spring, and gives his Lambs a fair and vigorous start; they also avoid the danger of being lost by bad weather, as no sheep should ever be confined in winter nor summer; great care should be taken to have your Ewes in fine order when they take the Ram; and when they first lamb I doubt whether they should be in very fine order, as I conceive the lamb is more apt to die. I would strongly recommend to every lover of sheep, to seed a field in Rye about the middle of August, when he harrows down his corn, which will afford him a fine fall pasture for his wethers, or such sheep as he intends for the butcher, and a great pasture for his Ewes and Lambs in the month of March, and the Rye will by no means be injured from producing a crop, provided they are removed by the first of April. One more important remark allow me to make; no farmer should ever keep a sheep over six years old, nor keep too many, and particular attention should be observed to remove them from field to field about every four weeks, as they become tired and wish a change,—if even you take them from a good to a bad pasture I believe they will rejoice at it and do better.

Question.—What is the best and most economical mode of keeping Milch Cows in full milk during winter?

Answer.—On this important subject I have made but few experiments; turneps, which have

* This has reference to underdraing, which improves the subsoil as well as the surface.

been highly spoken of by English Authors, I have but little faith in; the milk is thin, and I believe a cow will die on them, unless she has meal, short feed, or some other kind to aid them. I know of nothing more economical, and more calculated to produce fine milk than to have your cows well fed on clover hay and pumpkins; secured in a nice clean stable, well littered with straw, and the stall well cleaned every morning, and at night fresh litter—and plenty of nice water. In the first place a farmer who does not raise clover, should scarcely be entitled to enjoy that good name, and pumpkins can be raised in your cornfield without the least expense or trouble (by placing two or three seeds in every fourth hill each way, when you re-plant your corn,) except gathering them in the fall, which can be done by little boys or girls to remove them to the turning rows, before seeding wheat—but I believe chopped Rye straw mixed with meal would be very valuable feed also for horses. But to digress a little from the question, rest assured as much depends on the milk-maid, as does on the difference in food; if a cow is not milked clean, every time she will accumulate the milk left; therefore, care should be taken to extract every drop, and again a cloth and fresh water should be taken to the pen or stable every morning to wash the udders.

Question.—Do you consider oxen valuable as hauling beasts?—which is the best mode of breaking them, and the best and cheapest mode of feeding them in winter, when put to severe work?

Answer.—I do consider the ox a most valuable beast for labor, and very economical. In the first place they require no feed to raise them except grass, in summer, and coarse food in winter, and the manure they return will amply pay that expense, and when well broken are so governable that a small boy can drive them with security. You may work them ten or twelve years at hard and constant labor, at the expiration of which time you can, with two or even one summer's rest, and good pasture, with a small portion of corn, convert them into beef, or dispose of them to the butcher; you have the same advantage should they become lame or blind at an earlier period, which is not the case with horses. The capital invested is much smaller than when horses are employed, and the gear is much less expensive, and can be more easily repaired by your servants, and can draw as much manure out as a pair of horses, when the hauling is on the farm; but in my opinion should never be allowed to travel far, nor be driven out of a fast walk. I am strongly inclined to believe all oxen should be broken when one year old, by placing on them a small light yoke, and suffer your negro children or even your own children to drive them about in a common go-cart with a pair of truck wheels; children will become delighted with the sport, and become useful either in collecting manure from the road side or corners of fences, &c. and deposite in some suitable place, or bringing to the wood pile chips or bushes, &c.; should they be suffered to pass over this time, I have never encountered any difficulty in breaking them by placing a young one with an old one, yoke them, then secure their heads with a rope, and unite their tails with strings; have them gently led or driven about for one or two days, and then put to an empty cart, where they may be used perhaps a part of a day, then put them to light work, but they should be unyoked every night, as this gives them confidence—they should be gently handled, and an ear or two of corn given to them occasionally, when under yoke, and after it is removed.

The common habit and custom of farmers to give their oxen corn to work on, is in my opinion radically wrong, and a most wanton waste. Economy should be made the first study of a farmer, to learn to conduct his business with a true and steady eye to his interest in all its ramifications.

I have been constantly in the habit of using oxen for thirty-three years, and fear not a contradiction when I say I draw as constantly and work as many carts as any other person, in proportion to my number of acres, and I can with truth and sincerity say, I never used five barrels of corn or any other kind of grain during the time, with my hauling oxen. My constant habit is to have stalls provided for them with racks, where I feed them from the last of October with corn caps as long as they will last, then with some kind of coarse hay; some times during the winter I change their food from corn caps to hay, and so alternately as suits my convenience and opinions. In the spring I give them my top fodder, and occasionally a few blades and clover hay; this method I pursue until the grass puts up in the sring, when I turn them out and throw to them some kind of hay, top fodder or blades.

Through the spring and summer I cut green clover, and give to them every night. During meal spells I like to have some fine spot for them to graze on convenient to the house, or give them green cut clover, or dry clover. This practice, viz: winter feeding, I obtained when I first began to farm from a near neighbor, whom all will admit was a judicious farmer, viz: Mr. James Goldsborough, and he caught the idea from a farmer who should be held in the highest estimation for the improvement of land, and the first mover of a marl cart in this county, and perhaps in America, viz: the late Mr. John Singleton. Through the year I run from three to six carts daily except in harvest and planting corn time, (unless prevented by sickness or some unforseen accident.) My oxen are not fat,—is it the wish or profit of a farmer to have his oxen sleek, fat, and pampered like a turf steed? or is it his profit to do all he can with them, and at as moderate expense as practicable? To show the *practicability*, and not *theoretically*, what labor oxen can perform on the treatment I give them I will, for your satisfaction, (and hope it will not be considered presumption,) give you an extract from my Diary, of the number of loads of manure which have been put out on my land for the last eight years, independent of hauling wood, rails, litter, cornstalks, &c., and the drawing of my farm yard manure to the place of deposite with the view of making compost, &c., which I have never retained an account of—but I allude to actual marl, compost, marsh mud, &c., which can be denominated manure carted out on the field.

From seeding	1824,	till seeding	1825	6291
" "	1825,	" "	1826	8542
" "	1826,	" "	1827	6299
" "	1827,	" "	1828	5361
" "	1828,	" "	1829	7122
" "	1829,	" "	1830	5672
" "	1830,	" "	1831	*3862
" "	1831,	" "	1832	5266
Total,				48,415

* Too wet to draw.

Averaging 6052 loads each year, covering about 100 acres per annum, but I frequently put my compost on the same ground and in the same year where I marl, to give it action.

Question.—Are you of opinion that by the present mode of farming, our lands are impoverished more than they were many years ago, and if so what is the cause?

Answer.—This is a question in answering which considerable difficulty may occur,—when I take into consideration the vast majority of lands through the Eastern Shore, which are cultivated in three, and sometimes in two fields, without perhaps five acres being manured annually on each farm, and badly cultivated, I would say they are declining in value and character, and this is very much owing to land speculators who purchase up the large tracts of land cheap, and rent them from year to year at high prices, whereby the tenants have neither opportunity nor encouragement to improve, which would not be the case were the landlords to lease out said lands for a term of years, to good tenants, and enable them to improve the land. But many farmers are rapidly improving their lands, not only by manuring, the application of which is tenfold more than ten years ago, but by *judicious management, high cultivation, and a regular improved system.* The spirit of improvement appears to be increasing, and an Agricultural ambition now exists, which, in my opinion, will tend to raise the character of our lands, which added to the improved state of the health of the country, the easy access to market, the convenient and easy means of cultivation, the many and various kinds of manures to be procured, the many luxuries to be obtained from our waters, &c. &c., will in time invite strangers to settle among us, who may still add to our improvement, and prices of land—and in lieu of our youth seeking foreign climes, they will become more satisfied with "home, sweet home."

POTATOES FOOD FOR HORSES.

An Irish writer on husbandry, whose name is Martin Doyle, and whose works were published in Dublin in 1830, has the following remarks:

With respect to potatoe-feeding for horses, I recommend it from an experience of some years. My horses are old, (one of them at least 20 years of age,) but they are in high spirits and condition from having every evening after work, excepting during the soiling months, [when grass, &c. was cut and carried to them,] an abundant supply of boiled potatoes (warm) regularly given to them; but as the authority of T. C. Curwen, Esq. M. P. of Workington Hall, Cumberland, is infinitely more valuable than mine on this subject; I shall quote the following passages from his "Agricultural Hints."

"It requires from five to six hours for a horse to masticate a stone [14 lbs.] of hay, while he will eat a stone of potatoes in twenty minutes or less. The saving of four hours for rest, is alone sufficient to produce the greatest difference in the health and condition of the animal. After great fatigue also a horse would be tempted to take warm food when he would not eat hay. I have at this time in my works horses which were purchased six years ago of a farmer, who was selling off his stock as worn out, and of little value, and which are yet able to do their work with the best horses I have. I think there is little doubt of the life of this valuable animal being considerably prolonged by this mode of feeding—I have begun to mix an equal quantity of cut straw and potatoes; racks are, according to this mode of feeding, as unnecessary as they are productive of waste, for to save trouble they are always filled; and what is not eaten is always so tainted with the breath of the animal as to be wasted." Probably steamed mangel wurtzel and other roots would be valuable as food for horses.—*New-England Farmer.*

High Prices for Farms.—We last week mentioned the sale of the *Thompson Farm* at 80 dollars the acre. We understand the purchaser has already been offered and refused *twenty-five hundred dollars* for his bargain.

A farm one mile from Norristown, (Pennsylvania,) of 145 acres, was sold on the 17th ult. for $152 per acre. The purchaser has since refused $5000 for his bargain. Norristown is a small village, situated on the Schuylkill river, 17 miles from Philadelphia.—*Poughkeepsie Journal.*

Flatbush Property.—Several acres of woodland at Valley Grove, three miles from Brooklyn, adjoining the turnpike, were lately sold by G. L. Martense, at five hundred dollars per acre. Two acres, owned by Mr. M. Clarkson, in the same neighborhood, three and a half miles from the ferry, sold for one thousand dollars per acre. —*Brooklyn Star.*

Rochester Prices Current.

Wheat, per bu.	87½	Apples,	25a50
Flour, per brl.	5 00	Lard, cwt.	8 00
Pork, mess, brl.	15 00	Cheese do	5a7 00
do prime do	11 00	Butter	14a15
Beef pr cwt.	2 50a3 25	Hams do	8a9 00
Pork, hog	4 75a5 25	Pot Ash, cwt.	3 75
Oats,	28	Pearls,	4a4 25
Corn,	50	Hides, cwt.	5 00
Rye,	62	Sole Leather,	19a22 00
Barley,	50a56	Harness do	25 00
Hay, per ton,	7a9 00	Upper p side, drs'd	2 25
Grass Seed,	112½	Bundle do-	300a350
Potatoes,	19	Bridle,	24a26

INTERESTING ITEMS.

We gather the following items from a variety of sources:

FRENCH CAKE.—Take five common sized tumblers full of sifted flour, three tumblers of powdered white sugar, half a tumbler of butter, one tumbler of rich milk or cream, and a teaspoonful of pearlash dissolved in as much lukewarm water as will cover it. Mix all well together in a pan. Beat three eggs till very light, and then add them to the mixture. Throw in a teaspoonful of powdered cinnamon or nutmeg, and beat the whole very hard about ten minutes, butter a deep pan, put in the mixture, and bake it in a moderate oven.

TOAST AND WATER.—An infusion of toasted bread in water is one of the most salutary drinks that can be taken by the sick and valetudinary. Dr. Hancock gives his experience in its favor as follows: He cut a large thin slice of bread, toasted it carefully and thoroughly, without burning; put it, hot from the fire, in a pint of cold water; allowing it to stand a while, and then set it on the fire till it was as hot as tea is usually drunk. He found that five or six cups of this water, with or without sugar, were more refreshing, and sooner took off any fatigue or uneasiness, than any strong wine, strong ale, small beer, warmed coffee or tea, (for he had tried them all,) or any other liquor that he knew of.

TO CURE HAMS.—A friend recommends the following receipt. He ate hams preserved in this way in May last, and found them superior to any he had ever before eaten. Take one pound of salt, one ounce of saltpeter, well pulverised and mixed, with about two quarts of molasses, rub the hams thoroughly with this mixture, lay them flesh side up, and let them remain for 18 or 20 days.—*Western paper.*

TO IMPROVE CANDLES.—Steep the candle wick in a strong solution of saltpeter and water, and dry it well before dipping them. Try it once and you will find the advantage gained.

TO TAKE INK SPOTS OUT OF CLOTH OR LINEN.—Wet immediately the place with lemon or sorrel juice, or with white soap diluted with vinegar.

TO PREVENT SNOW-WATER FROM PENETRATING BOOTS OR SHOES.—Take equal qnantities of Bees wax and mutton suet, and melt them together in an earthen pipkin, over a slow fire. Lay the mixture while hot on the boots and shoes, which ought to be made warm also, let them stand before the fire a short time for it to soak in and then put them away until quite cold:—When they are so, rub them dry with a piece of flannel, in order that you may not grease your blacking brushes. If you black them well before you put the mixture on, you will find them take the blacking much better afterwards.

AN EXCELLENT CURE FOR SPRAIN.—Take two pieces of red flannel, soak or saturate one of them completely with beef or pork pickle, (beef is best) and place it on the wrist or ancle sprained, and wrap the other piece over it, and the pain will subside in a very short time.

REMEDY FOR RINGWORM.—A correspondent in the American Farmer writes as follows: "After I had the tetter nearly twenty years on my hand, and had used dollars' worth of tetter ointment, which took off the skin repeatedly without effecting a cure, a friend advised me to obtain some Blood-root, (called also Red-root, Indian paint, &c.) to slice it in vinegar, and afterwards wash the part affected with the liquid. I did so, and in a few days the dry scurf was removed, and my diseased hand was as whole as the other."

FOR INFLAMED SORE EYES.—White vitrol, one drachm, acid elixir of vitrol, twenty drops, and boiling water one pint: put the white vitrol into water, and when nearly cold, add the drops. and after add one large table spoonful of brandy or very old rum. If the above is found too strong, weaken each quantity drawn off with more or less rose water.

CURE FOR OXEN STRAINED BY OVER-DRAWING.—About half a pint of common soap, stirred up with a quart of milk, poured down the throat of the creature will, we are told, speedily effect a cure.

TO EXTINGUISH FIRE IN CHIMNEYS.—A few pinches of flour of sulphur thrown at intervals upon the coals or wood burning in the fire-place, will speedily extinguish the most raging fire in a chimney. The sulphureous vapour has also the advantage of pervading the crevices and ramifications of the chimneys and completely finishing the combustion. A pound of sulphur has effectually put out, in a few minutes, a fire in a tall chimney, when the flame rose three or four yards above the top. A wet cloth should be hung before the fire-place.

SMOKING.—The saliva serves the important purpose of mixing and preparing the food for the stomach; hence it ought not to be unnecessarily squandered by frequent spitting. The strange custom of smoking tobacco is on that account extremely hurtful, as it weakens the organs of digestion, deprives the body of many useful fluids, and has a direct tendency to emaciate it, particularly in young persons, and those of lean and dry fibers. To these it is the more detrimental, that it promotes not only the spitting of saliva, but likewise other evacuations. The practice not only vitiates the digestion, but impairs the understanding, and stupifies the powers of the mind.—*Dr. Willich.*

A PECULIAR BREED OF SHEEP IN THE NEPAL COUNTRY.—The huniah is a large, tall-breed, with slender compressed, spirally twisted horns, and short narrow tail. Though now naturalized in the Kachar, it is of trans-Himalayan origin. The color is almost invariably white. Individuals of these species are apt to have three, four, and even five horns. The huniah cannot bear the heat of Nepal south of the northern division, and will doubtless nourish in England, where the experiment is making of naturalizing it. Its wool is superb.

MAD ITCH.—A disease to which this name is given, it is stated, prevails among cattle in Indiana. The disease effects the head, causing such an itching that the animal keeps rubbing it against any hard substance it can find until death ensues. No remedy has been found to give relief. We understand that a case of the above disease occurred a few weeks since near Worthington, Franklin county. The afflicted animal was a milch cow, and previous to her death she had rubbed one ear entirely off! She was found dead, with her head in a stream of water, and the belief was that she had drowned herself in endeavoring to obtain relief from the cooling effects of the water.

LUSUS NATURÆ.—Mr. Simpson Sleight, of Chatham, exhibited to us a few days since, the shell of a hen's egg, taken from a nest in a poplar tree, ten feet from the ground. In this shell, which had been an egg of the unusual size, was a small egg—about the size of a robin's egg—of perfect shape, and resembling in every particular the larger one. The top of the tree in which the nest was found had been cut off, and the hen made her nest upon the head of the trunk, of leaves which had fallen there from the top. —*Columbia Sentinel.*

Hop Culture.—The Bangor Courier mentions that one of the packets of that place, bound for this city, recently took on board 200bales of No. 1 Hops raised in Penobscot. The value of this quantity is $8000, and the present prices of the article make the crop worth on an average, $150 per acre. As the Maine soil and climate are suited to the culture, we see no reason why it should not be carried, in that as well as other sections, much farther than it has been. In G. Britain about 50,000 acres are occupied with hops.

COWS.

The marks of a good cow are these: the forehead broad, the eyes black, the horns large and clean, the neck long and straight, the belly large and deep, the thighs thick, the legs round with short joints, and feet broad and thick. Red cows are said to give the best milk; though the black ones are said to bring the best calves, which, however, is doubtful. But the cow that gives milk the longest time between the periods of her calving, is generally the best for profit or family use; provided the quantity and quality of her milk be equal to that of others. Those that calve pretty early will yield most milk in the season.

The time of milking ought to be regular, and as nearly equi-distant as possible. Where the feeding is full, it is found that milking three times a day, during the summer season particularly, will increase the quantity nearly one-third. In that case the first milking ought to be at sunrise, the second about one, and the latter about seven or eight o'clock in the evening. Omitting to milk cows regularly, at least twice a day, tends very much to dry them. Sometimes one or more teats of a cow may be diseased, but this does not effect the milk of the rest.

Cows are certainly very profitable. Allowing one to give only six quarts a day, forty weeks in each year, and it is not a large allowance, her milk, at two cents per quart, will amount to upwards of thirty-three dollars; which is probably sufficient to purchase her, and pay for a year's keeping.—*American Farmer.*

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Also, a few hundred of the Morus Multicaulis or Phillipine Mulberry, the white Italian Mulberry by the hundred or thousand, English Hawthorn Quicks, Grape Vines of both native and foreign varieties, mostly of large size, for sale by the single vine, hundred or thousand at reduced prices. The subscriber has a large Green House well filled with a large collection of choice Green-House Plants in good condition.

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ASA ROWE.

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Catalogues may be had at the office of the Genesee Farmer—will be sent to those who wish them grati October 5, 1833 f6m

TO BUILDERS AND FARMERS.

HIGHLY important and useful improvement in securing Frame buildings against the effects of the external atmosphere.

The subscriber is owner and proprietor of the Patent, taken out in 1832, by Ebenezer Mix, Esq., of Batavia, for his very important improvement in securing houses and other farm buildings against the effects of *heat*, *frost* and *moisture* in the atmosphere.

This improvement was noticed in the Genesee Farmer, in the fall of 1832, and is now offered to the public notice. Its cheapness and importance to the comfort of buildings strongly recommend it to the attention of a discerning community.

By this improvement the great and long desired point, of disarming the external atmosphere of its unpleasant effects upon the comfort and well being of families is very fully attained.

Applications to the subscriber, post paid, inclosing the inconsiderable equivalent of five dollars, will procure for the applicant the privilege with instructions for using the said Patent-right in the erection of one single building or dwelling house

oct 5-6m JOHN LOWBER.

Batavia, Genesee Co., N. Y., Oct. 5, 1833